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Muon Induced EM Showers in NOvA Detectors

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The NOvA experiment is an electron neutrino appearance neutrino oscillation experiment at Fermilab. Electron neutrino events are identified by the electromagnetic (EM) showers induced by electrons in the final state of neutrino interactions. EM showers induced by cosmic muons or rock muons, are abundant in NOvA detectors. We use a Muon-Removal Technique to get pure EM shower samples from cosmic and rock muon data. Those samples can be used to characterize the EM signature and provide valuable checks of the MC simulation, reconstruction, PID algorithms, and calibration across the NOvA detectors.

Oral or Poster Presentation

Oral

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